

Attorney's Docket No.:10559/008001

Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (previously presented): A method of establishing a network connection, the method comprising:

establishing a connection across a first communication network that carries audio signals;

41 encoding a computer network address for a second network different from the first network into an encoded network address and sending the encoded network address across the first network;

using the network address that is sent over the first network to establish a network connection on the second network;

maintaining the first connection across the first communication network while the second network connection is being established; and

providing encryption capabilities, wherein providing the encryption capabilities comprise encrypting the audio signal using an encryption key.

2. (previously presented): The method of claim 1, further comprising:

transferring a secret key across at least one of the network connections; and

allowing network users to converse across the first communication network while encrypting and decrypting audio signals for each user.

3. (previously presented): A method of establishing a network connection, the method comprising:

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establishing a connection across a first communication network that carries audio signals;

encoding a computer network address for a second network different from the first network into an encoded network address and sending the encoded network address across the first network, where the encoded network address is encoded using dual tone multi-frequency signals;

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using the network address that is sent over the first network to establish a network connection on the second network, where the first network comprises a voice telephone network; and providing encryption capabilities, wherein providing the encryption capabilities comprise encrypting the audio signal using an encryption key.

4. (previously presented): A method of establishing a network connection, the method comprising:

establishing a connection across a first communication network that carries audio signals;

encoding a computer network address for a second network different from the first network into an encoded network address and sending the encoded network address across the first network, where the encoded network address is appended to telephone network signaling data; and

using the network address that is sent over the first network to establish a network connection on the second network.

5. (previously presented): The method of claim 1, wherein the second network comprises an Internet, wherein the computer network address comprises an Internet protocol address.

6. (cancelled)

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7. (cancelled)

8. (currently amended): A method of establishing a network connection, the method comprising:

establishing a connection across a first communication network that carries audio signals;

encoding a computer network address for a second network different from the first network into an encoded network address and sending the encoded network address across the first network;

using the network address that is sent over the first network to establish a network connection on the second network;

receiving a stream of audio signals;

sending the audio signals through the connection across the voice telephone network prior to said using said network address to establish a network connection; and

sending the audio signals through the connection across the computer network after said using said network address to establish a network connection.

9. (previously presented): A method of establishing a network connection, the method comprising:

establishing a connection across a first communication network that carries audio signals;

encoding a computer network address for a second network different from the first network into an encoded network address and sending the encoded network address across the first network;

using the network address that is sent over the first network to establish a network connection on the second network;

receiving a stream of audio signals;

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encrypting the audio signals using a first computer that is connected to the second network to form encrypted audio signals; and

sending the encrypted audio signals across the first network connection.

10. (previously presented): A method of establishing a network connection, the method comprising:

establishing a connection across a first communication network that carries audio signals;

encoding a computer network address for a second network different from the first network into an encoded network address and sending the encoded network address across the first network;

using the network address that is sent over the first network to establish a network connection on the second network;

transmitting an encryption key across the second network using the network connection;

encrypting an audio signal using the encryption key to form an encrypted audio signal; and

transmitting the encrypted audio signal across the first network.

11. (cancelled)

12. (previously presented): A method of establishing a network connection, the method comprising:

establishing a first connection across a voice telephone network between a first location and a second location;

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receiving an encoded network address at said second location, from the voice telephone network for a computer network that is different than the voice telephone network;
translating the encoded network address to a computer network address;
establishing a second connection between the first location and the second location across the computer network using the computer network address received from said voice telephone network;
maintaining the first connection across the first communication network while the second network connection is being established; and
providing encryption capabilities and authentication capabilities, wherein the encryption capabilities comprise a cryptographic key for encrypting and decrypting information.

13. (currently amended): A computer program stored on a computer-readable medium, for establishing a network connection, the computer program including instructions operable to cause a computer to:

obtain a computer network address for a computer network;

send the computer network address across a second network different than the computer network, wherein the second network comprises a voice telephone network;

receive a network connection request to establish a network connection across the computer network, and using the computer network address sent across the second network to establish the network connection sent over the second network;

support simultaneous network connections for the computer network and the second network; and

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provide encryption capabilities and authentication capabilities, wherein the encryption capabilities comprise a cryptographic key for) encrypting and decrypting information.

14. (cancelled)

15. (original): A method of encrypting a voice conversation, the method comprising:

establishing a connection across a voice communication network between a first party and a second party;

establishing a connection across a computer network between the first party and the second party;

transmitting an encryption key across the computer network so that both said first and second parties have said encryption key;

encrypting an audio signal using the encryption key; Bat
and

transmitting the encrypted audio signal across the voice telephone network.

16. (original): The method of claim 15, where establishing a connection across a computer network comprises:

encoding a computer network address into an encoded network address;

sending the encoded network address across the voice communication network; and

using the encoded network address to establish a connection across the computer network.

17. (original): A computer program stored on a computer-readable medium, for encrypting a telephone

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conversation, the computer program including instructions operable to cause a computer to:

establish a first connection across a computer network between a first party and a second party;

transmit an encryption key across the computer network so that both said first and second parties have said encryption key;

encrypt an audio signal using the encryption key; and

transmit the encrypted audio signal across a voice communication network using a second connection between the first party and the second party.

18. (currently amended): A method of authenticating a telephone call between a calling telephone and a receiving telephone, the method comprising:

establishing a connection across a voice communication network between a calling telephone and a receiving telephone;

establishing a connection across a computer network between a calling computer and a receiving computer by using a computer network address sent on the voice communication network to establish the connection on the computer network; and

verifying that the calling computer is coupled to the calling telephone by sending a signal from the receiving telephone to the calling telephone across the voice communication network and sending the signal from the calling computer to the receiving computer across the computer network.

19. (original): The method of claim 18, further comprising authenticating the calling computer.

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20. (original): The method of claim 18, where verifying the caller's computer is coupled to the calling telephone comprises:

generating a random number;

sending the random number to the calling telephone across the voice telephone network;

receiving the encrypted random number at the receiving computer across the computer network;

decrypting the encrypted random number using a public cryptographic key; and

comparing the random number with the decrypted random number.

21. (currently amended): The method of claim 18, where establishing a connection across a computer network comprises:

encoding ~~a~~ the computer network address into an encoded network address;

sending the encoded network address across the voice telephone network; and

receiving a network connection request to establish a connection across the computer network, where the network connection request uses the computer network address.

22. (currently amended): The method of claim 18, where establishing a connection across a computer network comprises:

receiving ~~an~~ the encoded network address across the voice telephone network;

translating the encoded network address to a computer network address; and

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sending a network connection request to establish a connection across the computer network, where the network connection request uses the computer network address.

23. (original): A method of authenticating a telephone call between a calling telephone and a receiving telephone, the method comprising:

establishing a connection across a voice communication network between a calling telephone and a receiving telephone;

establishing a connection across a computer network between a calling computer and a receiving computer; and

verifying that the receiving computer is coupled to the receiving telephone by sending a signal from the calling telephone to the receiving telephone across the voice communication network and sending the signal from the receiving computer to the calling computer across the computer network.

24. (original): A computer program stored on a computer-readable medium, for authenticating a telephone call between a calling telephone and a receiving telephone, the computer program including instructions operable to cause a computer to:

establish a connection across a computer network between a calling computer and a receiving computer; and

verify the calling computer is coupled to a calling telephone using both a voice telephone network and the computer network.

25 -30 (cancelled)